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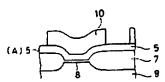
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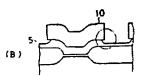
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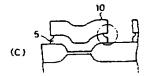
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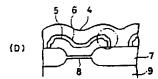
MANUFACTURE OF

SEMICONDUCTOR DEVICE









ABSTRACT :

PURPOSE: To prevent an electric field from locally concentrating and to improve the retaining characteristic of a stored charge by isotropically etching partly a conductive layer for storing the charge in an etching step of patterning the layer, and then anisotropically etching the residue.

CONSTITUTION: With a resist 10 as a mask it is isotropically etched. The isotropic etching is so optimized at its etching time as to etch a polysilicon layer 5 by approx. half. As the isotropic etching, a wet etching is, for example, employed. As the etchant, a solution of HNO_3 :HF=50:1 is, for example, employed. Then, with the resist 10 as a mask anisotropic etching is conducted. As the anisotropic etching, a dry etching, for example, plasma etching for etching by turning SF_6 gas plasmatic and reacting it with polysilicon is employed. Thereafter, a memory cell is formed by a normal EPROM process. Thus, the edge of a floating gate electrode 5 is rounded.

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